In the Claims

The listing of claims will replace all prior versions and listings of claims in the application.

Listings of claims

1. (Withdrawn) A method of antagonising gonadotropin releasing hormone activity in a patient, comprising administering a compound of formula (I):

$$R^{5}$$
 M
 R^{4}
 R^{1}
Formula (I)

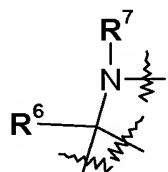
wherein:

- \mathbf{R}^1 is selected from: hydrogen, optionally substituted C_{1-6} alkyl, optionally substituted aryl or optionally substituted aryl C_{1-6} alkyl, wherein the optional substituents are selected from C_{1-4} alkyl, nitro, cyano, fluoro and C_{1-4} alkoxy;
- R² is an optionally substituted mono or bi-cyclic aromatic ring, wherein the optional substituents are 1, 2 or 3 substituents independently selected from: cyano, R^eR^fN-, C₁₋₆alkyl, C₁₋₆alkoxy, halo, haloC₁₋₆alkyl or haloC₁₋₆alkoxy wherein R^e and R^f are independently selected from hydrogen, C₁₋₆alkyl or aryl;
- **R**³ is selected from a group of Formula (IIa) to Formula (IId):

where \mathbf{R}^6 and \mathbf{R}^{6a} are independently selected from hydrogen, fluoro, optionally substituted C_{1-6} alkyl, C_{1-6} alkoxy, or \mathbf{R}^6 and \mathbf{R}^{6a} taken together and the carbon atom to which they are attached form a carbocyclic ring of 3-7 atoms or \mathbf{R}^6 and \mathbf{R}^{6a} taken together and the carbon atom to which they are attached form a carbonyl group;



or when **A** is not a direct bond the group forms a carbocyclic ring of 3-7 carbon atoms or a heterocyclic ring containing one or more heteroatoms;



or the group

forms a heterocyclic ring containing 3-7 carbon atoms and

one or more heteroatoms;

R⁷ is selected from: hydrogen or C₁₋₆alkyl;

R⁸ is selected from:

(i) hydrogen, C₁₋₆alkyl, C₂₋₆alkenyl, C₂₋₆alkynyl, haloC₁₋₆alkyl, C₁₋₄alkoxyC₁₋₄alkyl, hydroxy, hydroxyC₁₋₆alkyl, cyano, N-C₁₋₄alkylamino, N,N-di-C₁₋₄alkylamino, C₁₋₆alkyl-S(O_n)-, -O-R^b, -NR^bR^c, -C(O)-R^b, -C(O)O-R^b, -CONR^bR^c, NH-C(O)-R^b or -S(O_n)NR^bR^c, where R^b and R^c are independently selected from hydrogen and C₁₋₆alkyl optionally substituted with hydroxy, amino, N-C₁₋₄alkylamino, N,N-di-C₁₋₄alkylamino, HO-C₂₋₄alkyl-NH- or HO-C₂₋₄alkyl-N(C₁₋₄alkyl)-;

- (ii) nitro when **B** is a group of Formula (IV) and **X** is CH and **p** is 0;
- (iii) carbocyclyl (such as C_{3-7} cycloalkyl or aryl) or aryl C_{1-6} alkyl each of which is optionally substituted by \mathbf{R}^{12} , or \mathbf{R}^{13} ;
- (iv) heterocyclyl or heterocyclyl C_{1-6} alkyl each of which is optionally substituted by up to 4 substituents independently selected from R^{12} or R^{13} , and where any nitrogen atoms within a heterocyclyl group are, where chemically allowed, optionally in their oxidised (N \rightarrow O, N-OH) state;

A is selected from:

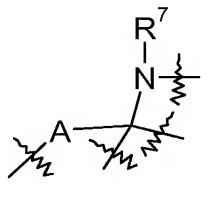
- (i) a direct bond;
- (ii) optionally substituted C_{1-5} alkylene wherein the optional substituents are independently selected from: hydroxy, hydroxy C_{1-6} alkyl, C_{1-6} alkyl, C_{1-6} alkyl, C_{1-6} alkyl, aryl or aryl C_{1-6} alkyl;
- (iii) a carbocyclic ring of 3-7 atoms;
- (iv) a carbonyl group or $-C(O)-C(\mathbf{R}^d\mathbf{R}^d)$ -, wherein \mathbf{R}^d is independently selected from hydrogen and C_{1-2} alkyl;

N-B A

or when \mathbb{R}^3 is a group of Formula (IIa) or (IIb), the group

forms a

heterocyclic ring containing 3-7 carbon atoms and one or more heteroatoms;



or when \mathbb{R}^3 is a group of Formula (IIa), (IIb), (IIc) or (IId), the group

forms

a heterocyclic ring containing 3-7 carbon atoms and one or more heteroatoms;

B is selected from:

- (i) a direct bond;
- (ii) a group of Formula (IV)

$$X \longrightarrow (CH_2)_{p}$$

Formula (IV)

wherein:

X is selected from N or CH,

wherein at position (a) Formula (IV) is attached to the nitrogen atom and the $(CH_2)_p$ group is attached to \mathbb{R}^8 ; and

(iii) a group independently selected from: optionally substituted C_{1-6} alkylene, optionally substituted C_{3-7} cycloalkyl, optionally substituted C_{3-6} alkenylene, optionally substituted C_{3-6} alkynyl, $(C_{1-5}$ alkyl)_{aa}- $S(O_n)$ - $(C_{1-5}$ alkyl)_{bb}-, $(C_{1-5}$ alkyl)_{bb}-, $(C_{1-5}$ alkyl)_{bb}-, $(C_{1-5}$ alkyl)_{bb}-, $(C_{1-5}$ alkyl)_{bb}-, or $(C_{1-5}$ alkyl)_{bb}-, or $(C_{1-5}$ alkyl)_{bb}-, or $(C_{1-5}$ alkyl)_{bb}-, or $(C_{1-5}$ alkyl)_{bb}-

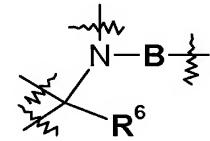
where \mathbf{R}^{17} is hydrogen or $C_{1\text{-}4}$ alkyl, or where \mathbf{R}^{17} and the $(C_{1\text{-}5}$ alkyl)_{aa} or $(C_{1\text{-}5}$ alkyl)_{bb} chain can be joined to form a heterocyclic ring, wherein aa and bb are independently 0 or 1 and the combined length of $(C_{1\text{-}5}$ alkyl)_{aa} and $(C_{1\text{-}5}$ alkyl)_{bb} is less than or equal to C_{5} alkyl and wherein the optional substituents are independently selected from \mathbf{R}^{12} ;

or the group -B-R⁸ represents a group of Formula (V)

Formula (V);

 \mathbb{R}^7 $\mathbb{N} - \mathbb{B} \stackrel{\downarrow}{\rightleftharpoons}$

or the group '2 together forms an optionally substituted heterocyclic ring containing 4-7 carbons atoms, wherein the optional substituents are selected from 1 or 2 substituents independently selected from R¹² and R¹³;



or the group

forms a heterocyclic ring containing 3-7 carbon atoms and

one or more heteroatoms;

 R^{11} is selected from: hydrogen, optionally substituted C_{1-6} alkyl, $N(R^{23}R^{24})$ or $NC(O)OR^{25}$, where R^{23} , R^{24} and R^{25} are independently selected from: hydrogen, hydroxy, optionally substituted C_{1-6} alkyl, optionally substituted aryl, optionally substituted aryl C_{1-6} alkyl, an optionally substituted carbocyclic ring of 3-7 atoms, optionally substituted heterocyclyl or optionally substituted heterocyclyl C_{1-6} alkyl or R^{23} and R^{24} taken together with the nitrogen atom to which they are attached, can form an optionally substituted ring of 3-10 atoms,

wherein the optional substituents are selected from \mathbf{R}^{12} and where K and \mathbf{R}^{8} are as defined herein;

J is a group of the formula: $-(CH_2)_s-L-(CH_2)_s-$ or $-(CH_2)_s-C(O)-(CH_2)_s-L-(CH_2)_s-$ wherein when **s** is greater than 0, the alkylene group is optionally substituted,

R⁷
|
N-J-₹

or the group 't together forms an optionally substituted heterocyclic ring containing 4-7 carbons atoms, wherein the optional substituents are selected from 1 or 2 substituents independently selected from \mathbf{R}^{12} and \mathbf{R}^{13} ;

K is selected from: a direct bond, $-(CH_2)_{s1}$ -, $-(CH_2)_{s1}$ -O- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -C(O)- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -N(\mathbf{R}^{17a})- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -C(O)N(\mathbf{R}^{17a})- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -N(\mathbf{R}^{17a})C(O)- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -N(\mathbf{R}^{17a})C(O)N(\mathbf{R}^{17a})- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -OC(O)- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -OC(O)O- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -OC(O)N(\mathbf{R}^{17a})- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -OC(O)N(\mathbf{R}^{17a})- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -OC(O)N(\mathbf{R}^{17a})- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -OS(O_n)- $(CH_2)_{s2}$ -, or $-(CH_2)_{s1}$ -S(O_n)-O- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -S(O)₂N(\mathbf{R}^{17a})- $(CH_2)_{s2}$ -or $-(CH_2)_{s1}$ -N(\mathbf{R}^{17a})S(O)₂- $(CH_2)_{s2}$ -; wherein the $-(CH_2)_{s1}$ - and $-(CH_2)_{s2}$ - groups are independently optionally substituted by hydroxy or C_{1-4} alkyl and wherein when s1>1 or s2>1 then the CH_2 group can optionally be a branched chain.;

where \mathbf{R}^{17a} is hydrogen or C_{1-4} alkyl;

L is selected from optionally substituted aryl or optionally substituted heterocyclyl;

R⁴ is selected from hydrogen, C₁₋₄alkyl or halo;

R⁵ is selected from a group of Formula III-a; III-b; III-c; III-d; III-e; III-f, III-g, III-h, III-i, or III-j, III-k, III-l, III-m, III-n or III-o

wherein:

het represents an optionally substituted 3- to 8-membered heterocyclic ring containing from 1 to 4 heteroatoms independently selected from O, N and S, wherein the optional substituents are selected from 1-2 groups selected from R¹² and R¹³; and

Q is selected from a direct bond or $-[C(\mathbf{R}^{16}\mathbf{R}^{16a})]_{1-2}$;

R¹⁴ and R¹⁵ are selected from:

(i) R^{14} selected from hydrogen; optionally substituted C_{1-8} alkyl; optionally substituted aryl; $-R^d$ -Ar, where R^d represents C_{1-8} alkylene and Ar represents optionally substituted aryl; and optionally substituted 3- to 8-membered heterocyclic ring optionally containing from 1 to 3 further heteroatoms independently selected from O, N and S; and R^{15} is selected from hydrogen; optionally substituted C_{1-8} alkyl and optionally substituted aryl;

- (ii) wherein the group of Formula (III) represents a group of Formula III-a, III-b, III-i, III-I or III-m, then the group NR¹⁴(-R¹⁵) represents an optionally substituted 3- to 8-membered heterocyclic ring optionally containing from 1 to 3 further heteroatoms independently selected from O, N and S; or
- wherein the group of Formula (III) represents structure III-e, represents an optionally substituted 3- to 8-membered heterocyclic ring optionally containing from 1 to 4 heteroatoms independently selected from O, N and S;

R¹⁶ and R^{16a} are independently selected from:

- (i) hydrogen or optionally substituted C₁₋₈alkyl; or
- (ii) R¹⁶ and R^{16a} together with the carbon to which they are attached form an optionally substituted 3 to 7-membered cycloalkyl ring;

R¹² is independently selected from: halo, hydroxy, hydroxyC₁₋₆alkyl, oxo, cyano, cyanoC₁₋₆alkyl, nitro, carboxyl, C₁₋₆alkyl, C₁₋₆alkoxy, C₁₋₆alkoxyC₁₋₄alkyl, C₁₋₆alkoxycarbonylC₀₋₄alkyl, C₁₋₆alkanoylC₀₋₄alkyl, C₁₋₆alkanoyloxyC₀₋₄alkyl, C₂₋₆alkenyl, C₁₋₃perfluoroalkyl-, C₁₋₃perfluoroalkoxy, aryl, arylC₁₋₆alkyl, heterocyclyl, heterocyclylC₁₋₆alkyl, aminoC₀₋₄alkyl, N-C₁₋₄alkylaminoC₀₋₄alkyl, N, N-di-C₁₋₄alkylaminoC₀₋₄alkyl, carbamoyl, N-C₁₋₄alkylcarbamoylC₀₋₂alkyl, N, N-di-C₁₋₄alkylaminocarbamoylC₀₋₂alkyl, aminocarbonylC₀₋₄alkyl, N-C₁₋₆alkyaminocarbonylC₀₋₄alkyl, N, N-C₁₋₆alkyaminocarbonylC₀₋₄alkyl, C_{1-6} alkyl- $S(O)_n$ -amino C_{0-4} alkyl-, aryl- $S(O)_n$ -amino C_{0-2} alkyl-, C_{1-3} perfluoroalkyl-S(O)_n-amino C_{0-2} alkyl-; C_{1-6} alkylamino-S(O)_n- C_{0-2} alkyl-, arylamino-S(O)_n-C₀₋₂alkyl-, C₁₋₃perfluoroalkylamino-S(O)_n-C₀₋₂alkyl-, C_{1-6} alkanoylamino- $S(O)_n$ - C_{0-2} alkyl-; arylcarbonylamino- $S(O)_n$ - C_{0-2} alkyl-, C_{1-6} alkyl- $S(O)_n$ - C_{0-2} alkyl-, aryl- $S(O)_n$ - C_{0-2} alkyl-, C_{1-3} perfluoroalkyl-, C_{1-3} perfluoroalkoxy C_{0-2} alkyl; $\mathbf{R}^{9'}OC(O)(CH_2)_{\mathbf{w}^-}$, $\mathbf{R}^{9''}\mathbf{R}^{10''}N(CH_2)_{\mathbf{w}^-}$, $\mathbf{R}^{9'}\mathbf{R}^{10''}NC(O)(CH_2)_{\mathbf{w}^-}$, $\mathbf{R}^{9}\mathbf{R}^{10}NC(O)N(\mathbf{R}^{9})(CH_{2})_{\mathbf{w}}$, $\mathbf{R}^{9}OC(O)N(\mathbf{R}^{9})(CH_{2})_{\mathbf{w}}$, or halo, wherein \mathbf{w} is an integer between 0 and 4 and R⁹ and R¹⁰ are independently selected from hydrogen, C₁₋₄alkyl, C₁₋₄alkylsulphonyl and C₃₋₇carbocyclyl, **R**⁹ and **R**¹⁰ are independently selected from C₁₋₄alkylsulphonyl and C₃₋₇carbocyclyl, and R⁹" and R¹⁰" are C₃₋₇carbocyclyl; wherein an amino group within R¹² is optionally substituted by C₁₋₄alkyl;

 \mathbf{R}^{13} is C_{1-4} alkylaminocarbonyl wherein the alkyl group is optionally substituted by 1, 2 or 3 groups selected from \mathbf{R}^{12} , or \mathbf{R}^{13} is a group -C(O)- \mathbf{R}^{18} and \mathbf{R}^{18} is selected from an amino acid derivative or an amide of an amino acid derivative;

M is selected from -CH₂-CH₂- or -CH=CH-;

n is an integer from 0 to 2;

p is an integer from 0 to 4;

s, s1 and s2 are independently selected from an integer from 0 to 4, and

s1+s2 is less than or equal to 4;

t is an integer between 0 and 4; and

or a salt, solvate or pro-drug thereof to a patient.

2. (Previously amended) A compound of formula (IA) which is a compound of formula (I):

$$R^{5}$$
 M
 R^{4}
 R^{1}
 R^{1}

Formula (I)

wherein:

 \mathbf{R}^1 is selected from: hydrogen, optionally substituted C_{1-6} alkyl, optionally substituted aryl or optionally substituted aryl C_{1-6} alkyl, wherein the optional substituents are selected from C_{1-4} alkyl, nitro, cyano, fluoro and C_{1-4} alkoxy;

R² is an optionally substituted mono or bi-cyclic aromatic ring, wherein the optional substituents are 1, 2 or 3 substituents independently selected from: cyano, R^eR^fN-, C₁₋₆alkyl, C₁₋₆alkoxy, halo, haloC₁₋₆alkyl or haloC₁₋₆alkoxy wherein R^e and R^f are independently selected from hydrogen, C₁₋₆alkyl or aryl;

R³ is selected from a group of Formula (IIa) to Formula (IId):

where \mathbf{R}^6 and \mathbf{R}^{6a} are independently selected from hydrogen, fluoro, optionally substituted C_{1-6} alkyl, C_{1-6} alkoxy, or \mathbf{R}^6 and \mathbf{R}^{6a} taken together and the carbon atom to which they

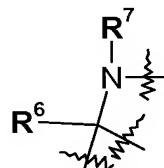
are attached form a carbocyclic ring of 3-7 atoms or \mathbb{R}^6 and \mathbb{R}^{6a} taken together and the carbon atom to which they are attached form a carbonyl group;

A R⁶

or when A is not a direct bond the group

forms a carbocyclic ring of 3-7

carbon atoms or a heterocyclic ring containing one or more heteroatoms;



or the group

forms a heterocyclic ring containing 3-7 carbon atoms and

one or more heteroatoms;

R⁷ is selected from: hydrogen or C₁₋₆alkyl;

R⁸ is selected from:

- (i) hydrogen, C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, halo C_{1-6} alkyl, C_{1-4} alkoxy C_{1-4} alkyl, hydroxy, hydroxy C_{1-6} alkyl, cyano, N- C_{1-4} alkylamino, N,N-di- C_{1-4} alkylamino, C_{1-6} alkyl- $S(O_n)$ -, -O- R^b , -N R^bR^c , -C(O)- R^b , -C(O)O- R^b , -CON R^bR^c , NH-C(O)- R^b or -S(O_n)N R^bR^c , where R^b and R^c are independently selected from hydrogen and C_{1-6} alkyl optionally substituted with hydroxy, amino, N- C_{1-4} alkylamino,
 - N,N-di-C₁₋₄alkylamino, HO-C₂₋₄alkyl-NH- or HO-C₂₋₄alkyl-N(C₁₋₄alkyl)-;
- (ii) nitro when **B** is a group of Formula (IV) and **X** is CH and **p** is 0;
- (iii) carbocyclyl (such as C_{3-7} cycloalkyl or aryl) or aryl C_{1-6} alkyl each of which is optionally substituted by \mathbf{R}^{12} , or \mathbf{R}^{13} ;
- (iv) heterocyclyl or heterocyclylC₁₋₆alkyl each of which is optionally substituted by up to 4 substituents independently selected from R¹² or R¹³, and where any nitrogen atoms within a heterocyclyl group are, where chemically allowed, optionally in their oxidised (N→O, N-OH) state;

A is selected from:

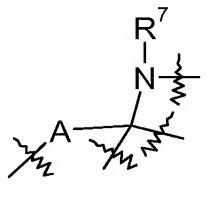
- (i) a direct bond;
- (ii) optionally substituted C_{1-5} alkylene wherein the optional substituents are independently selected from: hydroxy, hydroxy C_{1-6} alkyl, C_{1-6} alkyl, C_{1-6} alkoxy, C_{1-4} alkoxy C_{1-4} alkyl, aryl or aryl C_{1-6} alkyl;
- (iii) a carbocyclic ring of 3-7 atoms;
- (iv) a carbonyl group or $-C(O)-C(\mathbf{R}^d\mathbf{R}^d)$ -, wherein \mathbf{R}^d is independently selected from hydrogen and C_{1-2} alkyl;

N-B A

or when \mathbb{R}^3 is a group of Formula (IIa) or (IIb), the group

forms a

heterocyclic ring containing 3-7 carbon atoms and one or more heteroatoms;



or when \mathbb{R}^3 is a group of Formula (IIa), (IIb), (IIc) or (IId), the group

forms

a heterocyclic ring containing 3-7 carbon atoms and one or more heteroatoms;

B is selected from:

- (i) a direct bond;
- (ii) a group of Formula (IV)

$$X \longrightarrow (CH_2)_{p}$$

Formula (IV)

wherein:

X is selected from N or CH,

wherein at position (a) Formula (IV) is attached to the nitrogen atom and the $(CH_2)_p$ group is attached to \mathbb{R}^8 ; and

(iii) a group independently selected from: optionally substituted C_{1-6} alkylene, optionally substituted C_{3-7} cycloalkyl, optionally substituted C_{3-6} alkenylene, optionally substituted C_{3-6} alkynyl, $(C_{1-5}$ alkyl)_{aa}- $S(O_n)$ - $(C_{1-5}$ alkyl)_{bb}-, $(C_{1-5}$ alkyl)_{bb}-, $(C_{1-5}$ alkyl)_{bb}-, $(C_{1-5}$ alkyl)_{bb}-, $(C_{1-5}$ alkyl)_{bb}-, or $(C_{1-5}$ alkyl)_{bb}-, or $(C_{1-5}$ alkyl)_{bb}-, or $(C_{1-5}$ alkyl)_{ba}- $(C_{1-5}$ alkyl)_{bb}-

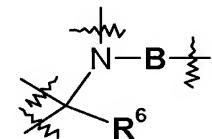
where \mathbf{R}^{17} is hydrogen or $C_{1\text{-}4}$ alkyl, or where \mathbf{R}^{17} and the $(C_{1\text{-}5}$ alkyl)_{aa} or $(C_{1\text{-}5}$ alkyl)_{bb} chain can be joined to form a heterocyclic ring, wherein aa and bb are independently 0 or 1 and the combined length of $(C_{1\text{-}5}$ alkyl)_{aa} and $(C_{1\text{-}5}$ alkyl)_{bb} is less than or equal to C_{5} alkyl and wherein the optional substituents are independently selected from \mathbf{R}^{12} ;

or the group -B-R⁸ represents a group of Formula (V)

Formula (V);

 \mathbb{R}^7 $\mathbb{N} - \mathbb{B} \stackrel{\downarrow}{\rightleftharpoons}$

or the group '2 together forms an optionally substituted heterocyclic ring containing 4-7 carbons atoms, wherein the optional substituents are selected from 1 or 2 substituents independently selected from R¹² and R¹³;



or the group

forms a heterocyclic ring containing 3-7 carbon atoms and

one or more heteroatoms;

 R^{11} is selected from: hydrogen, optionally substituted C_{1-6} alkyl, $N(R^{23}R^{24})$ or $NC(O)OR^{25}$, where R^{23} , R^{24} and R^{25} are independently selected from: hydrogen, hydroxy, optionally substituted C_{1-6} alkyl, optionally substituted aryl, optionally substituted aryl C_{1-6} alkyl, an optionally substituted carbocyclic ring of 3-7 atoms, optionally substituted heterocyclyl or optionally substituted heterocyclyl C_{1-6} alkyl or R^{23} and R^{24} taken together with the nitrogen atom to which they are attached, can form an optionally substituted ring of 3-10 atoms,

wherein the optional substituents are selected from \mathbf{R}^{12} and where K and \mathbf{R}^{8} are as defined herein;

J is a group of the formula: $-(CH_2)_s-L-(CH_2)_s-$ or $-(CH_2)_s-C(O)-(CH_2)_s-L-(CH_2)_s-$ when **s** is greater than 0, the alkylene group is optionally substituted,

R⁷
N-J

or the group ' 2 together forms an optionally substituted heterocyclic ring containing 4-7 carbons atoms, wherein the optional substituents are selected from 1 or 2 substituents independently selected from \mathbf{R}^{12} and \mathbf{R}^{13} ;

K is selected from: a direct bond, $-(CH_2)_{s1}$ -, $-(CH_2)_{s1}$ -O- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -C(O)- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -N(\mathbf{R}^{17a})- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -C(O)N(\mathbf{R}^{17a})- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -N(\mathbf{R}^{17a})C(O)- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -N(\mathbf{R}^{17a})C(O)N(\mathbf{R}^{17a})- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -OC(O)- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -OC(O)- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -OC(O)N(\mathbf{R}^{17a})- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -OC(O)N(\mathbf{R}^{17a})- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -OC(O)N(\mathbf{R}^{17a})- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -OS(O_n)- $(CH_2)_{s2}$ -, or $-(CH_2)_{s1}$ -S(O_n)-O- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -S(O)₂N(\mathbf{R}^{17a})- $(CH_2)_{s2}$ -or $-(CH_2)_{s1}$ -N(\mathbf{R}^{17a})S(O)₂- $(CH_2)_{s2}$ -; wherein the $-(CH_2)_{s1}$ - and $-(CH_2)_{s2}$ - groups are independently optionally substituted by hydroxy or C_{1-4} alkyl and wherein when s1>1 or s2>1 then the CH_2 group can optionally be a branched chain.;

where \mathbf{R}^{17a} is hydrogen or C_{1-4} alkyl;

L is selected from optionally substituted aryl or optionally substituted heterocyclyl;

R⁴ is selected from hydrogen, C₁₋₄alkyl or halo;

R⁵ is selected from a group of Formula III-a; III-b; III-c; III-d; III-e; III-f, III-g, III-h, III-i, or III-j, III-k, III-l, III-m, III-n or III-o

wherein:

het represents an optionally substituted 3- to 8-membered heterocyclic ring containing from 1 to 4 heteroatoms independently selected from O, N and S, wherein the optional substituents are selected from 1-2 groups selected from \mathbf{R}^{12} and \mathbf{R}^{13} ; and

Q is selected from a direct bond or $-[C(\mathbf{R}^{16}\mathbf{R}^{16a})]_{1-2}$;

R¹⁴ and R¹⁵ are selected from:

(i) R^{14} selected from hydrogen; optionally substituted C_{1-8} alkyl; optionally substituted aryl; $-R^d$ -Ar, where R^d represents C_{1-8} alkylene and Ar represents optionally substituted aryl; and optionally substituted 3- to 8-membered heterocyclic ring optionally containing from 1 to 3 further heteroatoms independently selected from O, N and S; and R^{15} is selected from hydrogen; optionally substituted C_{1-8} alkyl and optionally substituted aryl;

- (ii) wherein the group of Formula (III) represents a group of Formula III-a, III-b, III-i, III-I or III-m, then the group NR¹⁴(-R¹⁵) represents an optionally substituted 3- to 8-membered heterocyclic ring optionally containing from 1 to 3 further heteroatoms independently selected from O, N and S; or
- wherein the group of Formula (III) represents structure III-e, R¹⁴ represents an optionally substituted 3- to 8-membered heterocyclic ring optionally containing from 1 to 4 heteroatoms independently selected from O, N and S;

R¹⁶ and R^{16a} are independently selected from:

- (i) hydrogen or optionally substituted C₁₋₈alkyl; or
- (ii) R¹⁶ and R^{16a} together with the carbon to which they are attached form an optionally substituted 3 to 7-membered cycloalkyl ring;

R¹² is independently selected from: halo, hydroxy, hydroxyC₁₋₆alkyl, oxo, cyano, cyanoC₁₋₆alkyl, nitro, carboxyl, C₁₋₆alkyl, C₁₋₆alkoxy, C₁₋₆alkoxyC₁₋₄alkyl, C₁₋₆alkoxycarbonylC₀₋₄alkyl, C₁₋₆alkanoylC₀₋₄alkyl, C₁₋₆alkanoyloxyC₀₋₄alkyl, C₂₋₆alkenyl, C₁₋₃perfluoroalkyl-, C₁₋₃perfluoroalkoxy, aryl, arylC₁₋₆alkyl, heterocyclyl, heterocyclylC₁₋₆alkyl, aminoC₀₋₄alkyl, N-C₁₋₄alkylaminoC₀₋₄alkyl, N, N-di-C₁₋₄alkylaminoC₀₋₄alkyl, carbamoyl, N-C₁₋₄alkylcarbamoylC₀₋₂alkyl, N, N-di-C₁₋₄alkylaminocarbamoylC₀₋₂alkyl, aminocarbonylC₀₋₄alkyl, N-C₁₋₆alkyaminocarbonylC₀₋₄alkyl, N, N-C₁₋₆alkyaminocarbonylC₀₋₄alkyl, C_{1-6} alkyl- $S(O)_n$ -amino C_{0-4} alkyl-, aryl- $S(O)_n$ -amino C_{0-2} alkyl-, C_{1-3} perfluoroalkyl-S(O)_n-amino C_{0-2} alkyl-; C_{1-6} alkylamino-S(O)_n- C_{0-2} alkyl-, arylamino-S(O)_n-C₀₋₂alkyl-, C₁₋₃perfluoroalkylamino-S(O)_n-C₀₋₂alkyl-, C_{1-6} alkanoylamino- $S(O)_n$ - C_{0-2} alkyl-; arylcarbonylamino- $S(O)_n$ - C_{0-2} alkyl-, C_{1-6} alkyl- $S(O)_n$ - C_{0-2} alkyl-, aryl- $S(O)_n$ - C_{0-2} alkyl-, C_{1-3} perfluoroalkyl-, C_{1-3} perfluoroalkoxy C_{0-2} alkyl; $\mathbf{R}^{9'}OC(O)(CH_2)_{\mathbf{w}^-}$, $\mathbf{R}^{9''}\mathbf{R}^{10''}N(CH_2)_{\mathbf{w}^-}$, $\mathbf{R}^{9'}\mathbf{R}^{10''}NC(O)(CH_2)_{\mathbf{w}^-}$, $\mathbf{R}^{9}\mathbf{R}^{10}NC(O)N(\mathbf{R}^{9})(CH_{2})_{\mathbf{w}}$, $\mathbf{R}^{9}OC(O)N(\mathbf{R}^{9})(CH_{2})_{\mathbf{w}}$, or halo, wherein \mathbf{w} is an integer between 0 and 4 and R⁹ and R¹⁰ are independently selected from hydrogen, C₁₋₄alkyl, C₁₋₄alkylsulphonyl and C₃₋₇carbocyclyl, **R**⁹ and **R**¹⁰ are independently selected from C₁₋₄alkylsulphonyl and C₃₋₇carbocyclyl, and R⁹" and R¹⁰" are C₃₋₇carbocyclyl; wherein an amino group within R¹² is optionally substituted by C₁₋₄alkyl;

 \mathbf{R}^{13} is C_{1-4} alkylaminocarbonyl wherein the alkyl group is optionally substituted by 1, 2 or 3 groups selected from \mathbf{R}^{12} , or \mathbf{R}^{13} is a group -C(O)- \mathbf{R}^{18} and \mathbf{R}^{18} is selected from an amino acid derivative or an amide of an amino acid derivative;

M is selected from -CH₂-CH₂- or -CH=CH-;

n is an integer from 0 to 2;

p is an integer from 0 to 4;

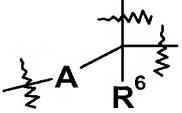
s, s1 and s2 are independently selected from an integer from 0 to 4, and

s1+s2 is less than or equal to 4;

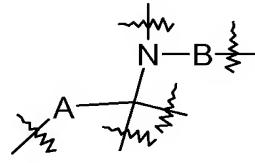
t is an integer between 0 and 4; and

or a salt, solvate or pro-drug thereof;

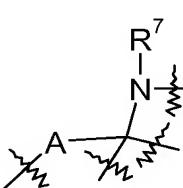
with the proviso that when



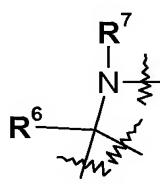
(i) the group forms an aromatic carbocyclic ring of 3-7 carbon atoms or an aromatic heterocyclic ring containing one or more heteroatoms, or



(ii) when \mathbb{R}^3 is a group of Formula (IIa) or (IIb), and the group forms an aromatic heterocyclic ring containing 3-7 carbon atoms and one or more heteroatoms; or (iii) when \mathbb{R}^3 is a group of Formula (IIa), (IIb), (IIc) or (IId), and the group



forms an aromatic heterocyclic ring containing 3-7 carbon atoms and one or more heteroatoms, or



(iv) when the group forms an aromatic heterocyclic ring containing 3-7 carbon atoms and one or more heteroatoms and A is a direct bond; then **R**⁵ is other than a group III-o.

3. (original) A compound according to claim 2 wherein the group $\bf A$ is selected from (i) a direct bond or (ii) optionally substituted C_{1-5} alkylene wherein the optional substituents are independently selected from: hydroxy, hydroxy C_{1-6} alkyl, C_{1-6} alkyl, C_{1-6} alkoxy, C_{1-4} alkyl, aryl or aryl C_{1-6} alkyl.

- 4. (Previously amended) A compound according to claim 2 which includes a group \mathbf{R}^{13} and wherein the group \mathbf{R}^{13} is $-C(O)-\mathbf{R}^{18}$, and \mathbf{R}^{18} is selected from an amino acid derivative or an amide of an amino acid derivative; or a salt, solvate or pro-drug thereof.
- 5. (Previously amended) A compound according to claim 2 wherein \mathbb{R}^1 is selected from hydrogen, optionally substituted C_{1-6} alkyl or optionally substituted aryl C_{1-6} alkyl, wherein the optional substituents are selected from: fluoro and C_{1-4} alkoxy.
- 6. (Previously amended) A compound according to claim 2 wherein \mathbb{R}^2 is phenyl, optionally substituted by one or more groups selected from methyl, ethyl, methoxy, ethoxy, tert-butoxy, F or Cl.
- 7. (Previously amended) A compound according to claim 2 wherein **R**³ is selected from a group of formula (IIc) or formula (IId).
- 8. (Previously amended) A compound according to claim 2 wherein \mathbb{R}^4 is selected from hydrogen, methyl, ethyl, chloro or bromo.
- 9. (Previously amended) A compound according to claim 2 wherein \mathbb{R}^5 is selected from a group of Formula III-a, III-b, III-i, III-j, III-k, III-I: or III-o

wherein R¹⁶, R^{16a}, R¹⁴ and R¹⁵ are as defined in claim 2.

10. (original) A compound according to claim 9 wherein R⁵ is a group of formula

- 11. (Previously amended) A compound according to claim 2 wherein M is -CH₂-CH₂-.
- 12. (Previously amended) A compound of Formula (Ia) as claimed in claim 2

$$R^{5}$$
 M
 R^{4}
 R^{1}

Formula (la)

wherein:

R³ is selected from a group of Formula (IIa) or Formula (IIb):

$$R^7$$
 $N-B-R^8$
 R^6
 R^6
 R^6
 R^6
 R^6
 R^6
 R^6
Formula (IIa)
Formula (IIb)

R⁷ is selected from: hydrogen or C₁₋₆alkyl;

B is a group of Formula (IV)

$$X \longrightarrow (CH_2)_{p} \xrightarrow{\frac{1}{2}} \mathbb{R}^{11}$$

Formula (IV)

and p, **A**, X, **M**, **R**¹, **R**², **R**⁴, **R**⁵ **R**⁶, **R**^{6a}, **R**⁸, and **R**¹¹ are as defined in claim 2 or a salt, solvate or pro-drug thereof.

13. (Previously amended) A compound of Formula (Ic) which is a compound of formula (Ia) as claimed in claim 2 wherein:

$$R^{5}$$
 M
 R^{4}
 R^{1}

Formula (Ic)

wherein:

R³ is selected from a group of Formula (IIc) or Formula (IId):

wherein

R⁷
N-J-

the group '2 together forms an optionally substituted heterocyclic ring containing 4-7 carbons atoms, wherein the optional substituents are selected from 1 or 2 substituents independently selected from R¹² and R¹³;

and **A**, **M**, **J**, **R**¹, **R**², **R**⁴, **R**⁵ **R**⁶, **R**^{6a}, **R**⁸, and **R**¹² and **R**¹³ are as defined in claim 2, or a salt, solvate or pro-drug thereof.

14. (Currently amended) A compound selected from:

3-[3,3-dimethyl-4-oxo-4-(azabicyclo[2.2.1]heptan-7-yl)butyl]-4-[2-{4-(morpholin-4-ylcarbonyl)piperidin-1-yl}ethyl]-5-(3,5-dimethylphenyl)-1H-pyrrole;

3-[3,3-dimethyl-4-oxo-4-(azabicyclo[2.2.1]heptan-7-yl)but-2-en-1-yl]-4-

[1s-methyl-2-(n'-isopropoxycarbonyl-3-pyrid-4-yl-pyrrolidin-1-ylcarboximidamido) ethyl]-5-(3,5-dimethylphenyl)-1H-pyrrole;

3-[3,3-dimethyl-4-oxo-4-(azabicyclo[2.2.1]heptan-7-yl)butyl]-4-

[1S-methyl-2-(N'-isopropoxycarbonyl-3-pyrid-4-yl-pyrrolidin-1-ylcarboximidamido) ethyl]-5-(3,5-dimethylphenyl)-1H-pyrrole;

3-[3,3-dimethyl-4-oxo-4-(azabicyclo[2.2.1]heptan-7-yl)butyl]-4-[2-{4-(pyrrolidin-1-ylcarbonyl)piperazin-1-yl}ethyl]-5-(3,5-dimethylphenyl)-1H-pyrrole;

2-chloro-3-[3,3-dimethyl-4-oxo-4-(azabicyclo[2.2.1]heptan-7-yl)butyl]-4-[2-{4-(pyrrolidin-1-ylcarbonyl)piperazin-1-yl}ethyl]-5-(3,5-dimethylphenyl)-1H-pyrrole;

3-[3,3-dimethyl-4-oxo-4-(azabicyclo[2.2.1]heptan-7-yl)butyl]-4-[2-{4-(4-hydroxypiperidin-1-yl}ethyl]-5-(3,5-dimethylphenyl)-1H-pyrrole;

3-[3,3-dimethyl-4-oxo-4-(azabicyclo[2.2.1]heptan-7-yl)butyl]-4-[2-{4-

(1,1-dioxo-isothiazolidin-2-ylcarbonyl)-4-methoxy-piperidin-1-yl}ethyl]-5-(3,5-dimethylphenyl)-1H-pyrrole;

3-[3,3-dimethyl-4-oxo-4-(azabicyclo[2.2.1]heptan-7-yl)butyl]-4-[1s-methyl-2-{1-benzyl-pyrrodin-3-ylamino}ethyl]-5-(3,5-dimethylphenyl)-1H-pyrrole;

3-[3,3-dimethyl-4-oxo-4-(azabicyclo[2.2.1]heptan-7-yl)butyl]-4-[1s-methyl-2-(2-{4-n-isopropylureidophenyl}ethylamino)ethyl]-5-(3,5-dimethylphenyl)-1H-pyrrole; 3-[3,3-dimethyl-4-oxo-4-(azabicyclo[2.2.1]heptan-7-yl)butyl]-4-[1s-methyl-2-{4-(pyrid-4-yl)piperidin-1-ylcarbonylamino}ethyl]-5-(3,5-dimethylphenyl)-1H-pyrrole; 3-[3,3-dimethyl-4-oxo-4-(azabicyclo[2.2.1]heptan-7-yl)butyl]-4-[1s-methyl-2-{3-(pyrid-4-yl)ppyrrolidin-1-ylcarbonylamino}ethyl]-5-(3,5-dimethylphenyl)-1H-pyrrole; and 3-[3,3-dimethyl-4-oxo-4-(azabicyclo[2.2.1]heptan-7-yl)butyl]-4-[1s-methyl-2-{4phenylpiperidin-1-ylcarbonylamino}ethyl]-5-(3,5-dimethylphenyl)-1H-pyrrole.

15. (Withdrawn) A process for preparing a compound of formula (I) as defined in claim 2 said process comprising a step selected from (a) to (h):

reaction of a compound of formula XXXII with a compound of formula H-R3', (a)

$$R^5$$
 M
 R^4
 R^1

XXXII

wherein X^1 is selected from:

; **L**¹ is a displaceable group; and

$$\mathbf{R}^{7}$$
 $\mathbf{N} - \mathbf{B} - \mathbf{R}^{8}$
 \mathbf{R}^{7}
 \mathbf{R}^{7}
 \mathbf{R}^{1}
 \mathbf{R}^{22}
 \mathbf{R}^{21}
 \mathbf{R}^{22}
 \mathbf{R}^{21}
 \mathbf{R}^{21}
 \mathbf{R}^{22}
 \mathbf{R}^{21}
 \mathbf{R}^{22}
 \mathbf{R}^{21}
 \mathbf{R}

H-R^{3'} is selected from:

reaction of a compound of formula XXXIII with a compound of formula L2-R3", (b)

$$R^5$$
 M
 R^4
 R^1

XXXIII

wherein X^2 is selected from: ; L^2 is a displaceable group and R^{7a} is selected from the definition of R^7 or R^{22} above, and $L^2-R^{3"}$ is selected from: L^2-B-R^8 , $L^2-J-K-R^8$ and L^2-R^{21}

- (c) for compounds of Formula (I) or (IA) wherein \mathbf{R}^7 is other than part of a heterocyclic ring or hydrogen, reaction of a compound of Formula (I) or (IA) wherein \mathbf{R}^3 is a group of Formula (IIa), (IIb), (IIc) or (IId) and \mathbf{R}^7 is hydrogen with a group of formula \mathbf{L}^3 - \mathbf{R}^{7a} , wherein \mathbf{R}^{7a} is as defined above for \mathbf{R}^7 with the exclusion of hydrogen and \mathbf{L}^3 is a displaceable group;
- (d) for compounds of Formula (I) or (IA) wherein \mathbf{R}^4 is hydrogen, reduction of a thienopyrrole of Formula XXXVIII

$$R^{5}$$
 S
 R^{1}

XXXVII

(e) for compounds of Formula (I) wherein \mathbb{R}^3 is a group of Formula (IIc) or (IId) and

the group together forms an optionally substituted nitrogen-containing heterocyclic ring containing 4-7 carbons atoms, reaction of a compound of Formula

heterocyclic ring containing 4-7 carbons atoms, reaction of a compound of Formula **XXXIVa** or **XXXIVb**, with a compound of Formula **L**⁶-**K**-**R**⁸, wherein **L**⁶ is a displaceable group

(f) for compounds of Formula (I) wherein \mathbb{R}^3 is a group of Formula (IIc) or (IId), reaction of a compound of Formula XXXVa or XXXVb, with a compound of Formula \mathbb{L}^7 -K"- \mathbb{R}^8 ,

wherein \mathbf{L}^7 is a displaceable group, and wherein the groups \mathbf{K}' and \mathbf{K}'' comprise groups which when reacted together form \mathbf{K} ,

(g) reaction of a compound of Formula **XXXVI** with an electrophillic compound of the formula $\mathbf{L^8-R^3}$, wherein $\mathbf{L^8}$ is a displaceable group

$$R^{5}$$
 M R^{2} R^{1} $XXXVI$

(h) reaction of a compound of Formula XXXIX with an appropriate electrophilic reagent to give a compounds of Formula (I)

$$R^5$$
 M
 R^5
 R^2
 R^1

XXXIX

and thereafter if necessary, carrying out one or more of the following steps:

- i) converting a compound of the Formula (I) into another compound of the Formula (I);
- ii) removing any protecting groups;
- iii) forming a salt, pro-drug or solvate.
- 16. (Prevously Amended) A pharmaceutical formulation comprising a compound according to claim 2, or salt, pro-drug or solvate thereof, and a pharmaceutically acceptable diluent or carrier.
- 17-18. (cancelled)
- 19. (New) A compound of formula (I):

$$R^{5}$$
 M
 R^{4}
 R^{1}
Formula (I)

wherein:

 \mathbf{R}^1 is selected from: hydrogen, optionally substituted C_{1-6} alkyl, optionally substituted aryl or optionally substituted aryl C_{1-6} alkyl, wherein the optional substituents are selected from C_{1-4} alkyl, nitro, cyano, fluoro and C_{1-4} alkoxy;

 \mathbf{R}^2 is an optionally substituted phenyl, wherein the optional substituents are 1, 2 or 3 substituents independently selected from: cyano, $\mathbf{R}^e\mathbf{R}^f\mathbf{N}$ -, C_{1-6} alkyl, C_{1-6} alkoxy, halo, halo C_{1-6} alkyl or halo C_{1-6} alkoxy wherein \mathbf{R}^e and \mathbf{R}^f are independently selected from hydrogen, C_{1-6} alkyl or aryl;

R³ is selected from a group of Formula (IIc) or Formula (IId):

where \mathbf{R}^6 and \mathbf{R}^{6a} are independently selected from hydrogen, fluoro, optionally substituted C_{1-6} alkyl, C_{1-6} alkoxy, or \mathbf{R}^6 and \mathbf{R}^{6a} taken together and the carbon atom to which they are attached form a carbocyclic ring of 3-7 atoms or \mathbf{R}^6 and \mathbf{R}^{6a} taken together and the carbon atom to which they are attached form a carbonyl group;

R⁷ is selected from: hydrogen or C₁₋₆alkyl;

R⁸ is selected from:

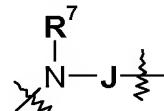
- (i) hydrogen, C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, halo C_{1-6} alkyl, C_{1-4} alkoxy C_{1-4} alkyl, hydroxy, hydroxy C_{1-6} alkyl, cyano, N- C_{1-4} alkylamino, N,N-di- C_{1-4} alkylamino, C_{1-6} alkyl- $S(O_n)$ -, -O- \mathbf{R}^b , -N $\mathbf{R}^b\mathbf{R}^c$, -C(O)- \mathbf{R}^b , -C(O)O- \mathbf{R}^b , -CON $\mathbf{R}^b\mathbf{R}^c$, NH-C(O)- \mathbf{R}^b or -S(O_n)N $\mathbf{R}^b\mathbf{R}^c$, where \mathbf{R}^b and \mathbf{R}^c are independently selected from hydrogen and C_{1-6} alkyl optionally substituted with hydroxy, amino, N- C_{1-4} alkylamino, N,N-di- C_{1-4} alkylamino, HO- C_{2-4} alkyl-NH- or HO- C_{2-4} alkyl-N(C_{1-4} alkyl)-;
- (iii) carbocyclyl (such as C_{3-7} cycloalkyl or aryl) or aryl C_{1-6} alkyl each of which is optionally substituted by \mathbf{R}^{12} , or \mathbf{R}^{13} ;

(iv) heterocyclyl or heterocyclylC₁₋₆alkyl each of which is optionally substituted by up to 4 substituents independently selected from R¹² or R¹³, and where any nitrogen atoms within a heterocyclyl group are, where chemically allowed, optionally in their oxidised (N→O, N-OH) state;

A is selected from:

- (i) a direct bond;
- (ii) optionally substituted C_{1-5} alkylene wherein the optional substituents are independently selected from: hydroxy, hydroxy C_{1-6} alkyl, C_{1-6} alkyl, C_{1-6} alkoxy, C_{1-4} alkoxy C_{1-4} alkyl, aryl or aryl C_{1-6} alkyl;
- (iii) a carbocyclic ring of 3-7 atoms;
- (iv) a carbonyl group or $-C(O)-C(\mathbf{R}^d\mathbf{R}^d)$ -, wherein \mathbf{R}^d is independently selected from hydrogen and C_{1-2} alkyl;

J is a group of the formula: $-(CH_2)_s-L-(CH_2)_s-$ or $-(CH_2)_s-C(O)-(CH_2)_s-L-(CH_2)_s-$ when **s** is greater than 0, the alkylene group is optionally substituted,



or the group 7 together forms an optionally substituted heterocyclic ring containing 4-7 carbons atoms, wherein the optional substituents are selected from 1 or 2 substituents independently selected from \mathbf{R}^{12} and \mathbf{R}^{13} ;

K is selected from: a direct bond, $-(CH_2)_{s1}$ -, $-(CH_2)_{s1}$ -O- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -C(O)- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -N(\mathbf{R}^{17a})- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -C(O)N(\mathbf{R}^{17a})- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -N(\mathbf{R}^{17a})- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -N(\mathbf{R}^{17a})C(O)- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -OC(O)- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -OC(O)N(\mathbf{R}^{17a})- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -OS(O_n)- $(CH_2)_{s2}$ -, or $-(CH_2)_{s1}$ -S(O_n)-O- $(CH_2)_{s2}$ -, $-(CH_2)_{s1}$ -S(O)₂N(\mathbf{R}^{17a})- $(CH_2)_{s2}$ -or $-(CH_2)_{s1}$ -N(\mathbf{R}^{17a})S(O)₂- $(CH_2)_{s2}$ -; wherein the $-(CH_2)_{s1}$ - and $-(CH_2)_{s2}$ - groups are independently optionally substituted by hydroxy or C_{1-4} alkyl and wherein when s1>1 or s2>1 then the CH_2 group can optionally be a branched chain.;

where \mathbf{R}^{17a} is hydrogen or C_{1-4} alkyl;

L is selected from optionally substituted aryl or optionally substituted heterocyclyl;

R⁴ is selected from hydrogen, C₁₋₄alkyl or halo;

R⁵ is selected from one of the following groups:

R¹² is independently selected from: halo, hydroxy, hydroxyC₁₋₆alkyl, oxo, cyano, cyanoC₁₋₆alkyl, nitro, carboxyl, C₁₋₆alkyl, C₁₋₆alkoxy, C₁₋₆alkoxyC₁₋₄alkyl, C₁₋₆alkoxycarbonylC₀₋₄alkyl, C₁₋₆alkanoylC₀₋₄alkyl, C₁₋₆alkanoyloxyC₀₋₄alkyl, C₂₋₆alkenyl, C₁₋₃perfluoroalkyl-, C₁₋₃perfluoroalkoxy, aryl, arylC₁₋₆alkyl, heterocyclyl, heterocyclylC₁₋₆alkyl, aminoC₀₋₄alkyl, N-C₁₋₄alkylaminoC₀₋₄alkyl,
N, N-di-C₁₋₄alkylaminoC₀₋₄alkyl, carbamoyl, N-C₁₋₄alkylcarbamoylC₀₋₂alkyl, N,

N-di-C₁₋₄alkylaminoC₀₋₄alkyl, carbamoyl, N-C₁₋₄alkylcarbamoylC₀₋₂alkyl, N, N-di-C₁₋₄alkylaminocarbamoylC₀₋₂alkyl, aminocarbonylC₀₋₄alkyl,

 $N-C_{1-6}$ alkyaminocarbonyl C_{0-4} alkyl, N, $N-C_{1-6}$ alkyaminocarbonyl C_{0-4} alkyl,

 C_{1-6} alkyl- $S(O)_n$ -amino C_{0-4} alkyl-, aryl- $S(O)_n$ -amino C_{0-2} alkyl-,

$$\begin{split} &C_{1\text{-}3} perfluoroalkyl-S(O)_n-aminoC_{0\text{-}2} alkyl-; \ C_{1\text{-}6} alkylamino-S(O)_n-C_{0\text{-}2} alkyl-,\\ &arylamino-S(O)_n-C_{0\text{-}2} alkyl-, \ C_{1\text{-}3} perfluoroalkylamino-S(O)_n-C_{0\text{-}2} alkyl-, \end{split}$$

C₁₋₆alkanoylamino-S(O)_n-C₀₋₂alkyl-; arylcarbonylamino-S(O)_n-C₀₋₂alkyl-,

 C_{1-6} alkyl- $S(O)_n$ - C_{0-2} alkyl-, aryl- $S(O)_n$ - C_{0-2} alkyl-, C_{1-3} perfluoroalkyl-,

 $C_{1\text{-}3} perfluoroalkoxy C_{0\text{-}2} alkyl; \ \boldsymbol{R^{9'}OC(O)(CH_2)_{\boldsymbol{w}^{-}}}, \ \boldsymbol{R^{9''}R^{10''}N(CH_2)_{\boldsymbol{w}^{-}}}, \ \boldsymbol{R^{9''}R^{10''}NC(O)(CH_2)_{\boldsymbol{w}^{-}}},$

 $R^9R^{10}NC(O)N(R^9)(CH_2)_{w^-}$, $R^9OC(O)N(R^9)(CH_2)_{w^-}$, or halo, wherein **w** is an integer between 0 and 4 and R^9 and R^{10} are independently selected from hydrogen, C_{1-4} alkylsulphonyl and C_{3-7} carbocyclyl, $R^{9'}$ and $R^{10'}$ are independently selected from C_{1-4} alkylsulphonyl and C_{3-7} carbocyclyl, and $R^{9''}$ and $R^{10''}$ are C_{3-7} carbocyclyl; wherein an amino group within R^{12} is optionally substituted by C_{1-4} alkyl;

 R^{13} is C_{1-4} alkylaminocarbonyl wherein the alkyl group is optionally substituted by 1, 2 or 3 groups selected from R^{12} , or R^{13} is a group $-C(O)-R^{18}$ and R^{18} is selected from an amino acid derivative or an amide of an amino acid derivative;

M is selected from -CH₂-CH₂- or -CH=CH-;

n is an integer from 0 to 2;

p is an integer from 0 to 4;

s, s1 and s2 are independently selected from an integer from 0 to 4, and s1+s2 is less than or equal to 4;

t is an integer between 0 and 4; and or a salt, solvate or pro-drug thereof.

20. (New) A pharmaceutical formulation comprising a compound according to claim 19, or salt, pro-drug or solvate thereof, and a pharmaceutically acceptable diluent or carrier.